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KILPATRICK TOWNSEND & STOCKTON LLP  
1100 Peachtree Street  
Suite 2800  
ATLANTA, GA 30309

EXAMINER
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ZHANG, JUE

ART UNIT	PAPER NUMBER
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2838

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06/23/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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Continuation of 11.

Applicant's arguments in the Remarks filed on 6/2/2011 have been considered and please see the examiner's responses for the reasons as discussed below.

a. Applicant stated on page 12 of the Remarks:

8. Applicant submits that Nanno's DC-DC converter is not equivalent to the claimed voltage converter circuit, which is "configured to convert a supply voltage to a battery voltage; . . . connects the output circuit to the switch matrix and is configured to convert the voltage of the selected one of the batteries to a voltage for use by the output circuit." (See, Applicants' claim 34, above.) In particular, Applicants submit that Nanno fails to disclose that the DC-DC converter is "configured to convert a supply voltage to a battery voltage," as recited in Applicants' claim 34. (See, Applicants' claim 34, above.) Rather, while the DC-DC converter generates operating power from Nanno's batteries, a separate battery charger is used by Nanno to charge the batteries. (See, Nanno, col. 5, lns. 52-62; FIG. 2.)

Examiner's Response:

Applicant's above arguments have been fully considered but they are not persuasive.

As regarding the teachings of the DC-DC converter is configured to convert a supply voltage to a battery voltage, Examiner respectively repeat his position that the teachings are being relied on the disclosure of the primary art '077 as shown below, the battery cells being charged by the converted voltage supplied to the terminals of the battery cells from the input power source.

**Page 12, lines 1-8, 26-29 of '077:**

12

system if necessary. The coil also importantly acts a power receiver to allow inductive charging of the power supply.

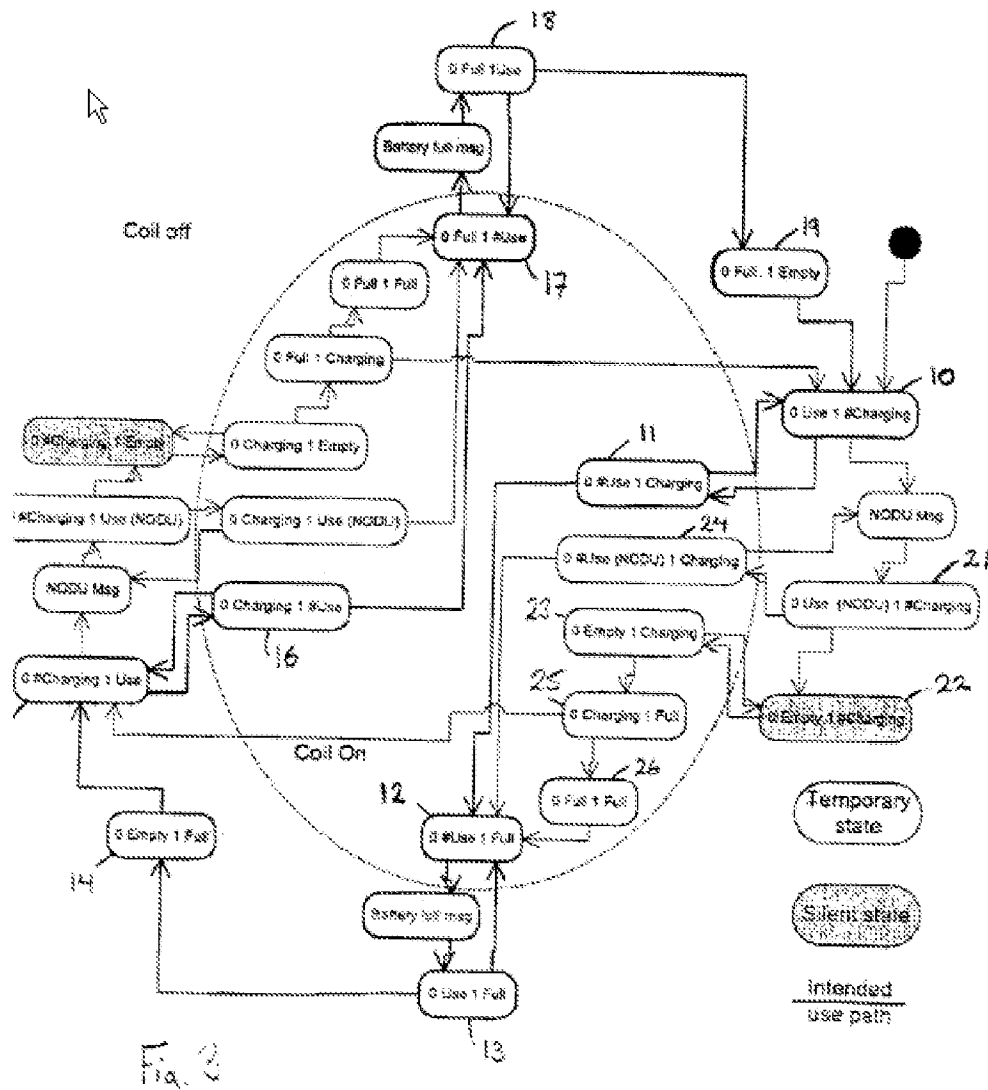
A battery charging means that is mounted external to the body of the  
implantee can be used to recharge the batteries of the power supply. Where  
5 the prosthesis is a cochlear implant having an implanted antenna coil, the  
battery charging means also includes an antenna coil that through use of the  
inductive link formed by bringing the implanted coil and the external coil  
adjacent each other, allows the implanted power supply to be recharged.

25 implant.

It is also preferred that whenever the external power source is being  
used by the implantee, the management system will review the output of the  
monitoring means and, if charging is required of a particular battery, ensure  
that charge is provided to allow recharging of at least that battery.

**Page 18, lines 9-12 of '077:**

As described, the depicted power supply 43 uses two cells. At any  
10 time, under normal operation, one cell is assigned to charging, and one to  
discharging. When one cell becomes discharged, and the other is fully  
charged, the roles are reversed. This path may be seen easily by following the  
bold line, which is the intended use path of the power supply 43.



b. Applicant further argued in the Remarks:

9. In the Office Action, the Examiner alleges that Nanno's DC-DC converter "converts battery voltage to an output voltage suitable for power the output load circuit." (See, Office Action, pg. 5.) The Examiner further alleges that "it would have been obvious . . . to have modified the voltage converter circuit to include the voltage conversion means to further connect the output circuit, as disclosed in [Nanno], because it converts the voltage of the selected battery to the supply voltage needed by load circuit." (See, Office Action, pg. 6.) As such, the Examiner appears to allege that it would have been obvious (1) to modify Single's external battery charging means to include Nanno's DC-DC converter, and (2) to further modify Single's external battery charging means to connect Single's switch means to Single's output circuit. Applicants respectfully disagree and submit that the Examiner's obviousness conclusion is improper because the Examiner has failed to provide an appropriate basis for making the proposed modifications of Single.

*The Examiner has failed to provide an adequate reason for combining Single's battery charging means with Nanno's DC-DC converter*

12. Single discloses that when the external battery charging means is being used, the charging means itself is used as the source of power, and not one of the batteries. (See, Single, pg. 12, lns. 18-25.) Single also discloses that "it is preferred that whenever the external power source is being used by the implantee, the implanted battery source will be disconnected from the electrical equipment, such as the implant, by the switching means." (See, Single, pg. 12, lns. 18-20; emphasis added.) Because Single's external battery charging means is used to power the device instead of the implanted batteries, and not with the batteries, there is no reason for the external charging means to be able to "convert[] the voltage of the selected battery to the supply voltage needed by [the] load circuit." (See, Office Action, pg. 6.) As such, Applicants submit that it would not have been obvious to incorporate the functionality of Nanno's DC-DC converter into Single's external battery charging means. For at least these reasons, Applicants submit that the Examiner's obviousness conclusion is improper and should be withdrawn.

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1959).” (See, MPEP 2143.01(VI)). As noted above, Single discloses that its external battery charging means is used to power the device instead of the implanted batteries, and discloses that it is preferred to disconnect the implanted battery source when the external battery charging means is in use. Accordingly, Applicants submit that using the external

Examiner's Response:

Applicant's above arguments have been fully considered but they are not persuasive.

Examiner would respectively further point out that the teachings of the claimed limitations for selectively connecting a selected one of the batteries to the output circuit to enable the selected one of the batteries to be discharged through the output circuit, is being relied upon the disclosure of the primary art '077 (see lines 3-11, page 24; line 18 page 25 to line 16 page 26; lines 24-27, page 27; lines 9-15, page 18; Fig. 3). What '077 does not disclose is further **converting the voltage of the selected battery to a voltage for use by the output voltage**. And this is what the secondary prior art '294 disclosed and being combined to the primary prior art '077 for the motivation of **converting the selected battery voltage to a voltage needed by the load circuit**, as disclosed by '294.

The test for obviousness is what the combined teachings of the references would have suggested to the artisan. Accordingly, one can not show nonobviousness by attacking references individually where the rejection is based on a combination of references. In re Keller, 642 F.2d 413,426 (CCPA 1981).

Page 24, lines 24-27 of '077:

4. A power management system of any one of the preceding claims  
wherein the management means only allows power to be drawn from one of  
25 said first and said at least one further batteries after said one battery has been  
fully charged or has a pre-determined maximum level of charge.

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Page 25, lines 18-26 of '077:

12. A power management system for a power supply providing power to a  
cochlear implant, the power supply comprising a first rechargeable battery  
20 and at least one further rechargeable battery, with each battery independently  
providing power to the cochlear implant through a switching means, wherein  
the management system comprises a management means for controlling the  
operation of the switching means to place the system in a first state where the  
cochlear implant draws power from only the first battery or at least in a  
25 further state where the cochlear implant draws power from only said at least  
one further battery.

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Page 18, lines 9-15 of '077:

As described, the depicted power supply 43 uses two cells. At any  
30 time, under normal operation, one cell is assigned to charging, and one to  
discharging. When one cell becomes discharged, and the other is fully  
charged, the roles are reversed. This path may be seen easily by following the  
bold line, which is the intended use path of the power supply 43.

A basic principle of the management system is that a cell must be fully  
15 charged before it can be discharged, and it must be fully discharged before it  
can be charged.

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As regarding the argued features such as using the input power source to power  
the load circuit, Examiner would respectively remind the Applicant that the argued  
features are not recited in the rejected claims. Although the claims are interpreted in  
light of the specification, limitations from the specification are not read into the claims.  
See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, the grounds of rejection are maintained.